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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

7486

August 4, 2016

Lon Thomas  
Star Stone Quarries  
4040 South 300 West  
Salt Lake City, Utah 84107

Subject: Second Review of Amended Notice of Intention to Commence Large Mining Operations, Star Stone Quarries, Torrey Quarry, M/055/0016, Wayne County, Utah

Dear Mr. Thomas:

The Division of Oil, Gas and Mining has reviewed the referenced amended Notice of Intention to Commence Large Mining Operations (Notice) which was received July 6, 2016. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages for the original Notice using redline and strikeout text. After the Notice is determined technically complete, the Division will ask that you submit two clean copies. Upon final approval, both will be stamped approved, and one copy will be returned for your records.

The Division has the following general comments:

- The submittal should be formatted to easily incorporate additional revisions and amendments.
- The Division may have additional comments based on the review responses.

Please submit your response to this review by September 15, 2016.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. Please contact Wayne Western, at 801-538-5263 or me at 801-538-5261 if you have questions concerning the review.

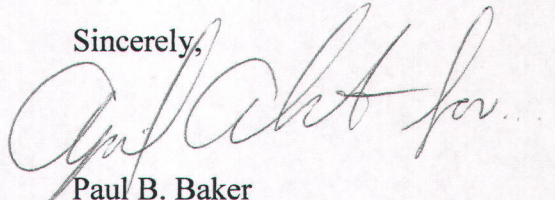




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Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul B. Baker", written in dark ink.

Paul B. Baker  
Minerals Program Manager

PBB: whw: eb  
Attachment: Review  
cc: John Reay, Hanksville BLM (jreay@blm.gov)  
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**SECOND REVIEW OF AMENDED NOTICE OF INTENTION  
TO COMMENCE LARGE MINING OPERATIONS**

Star Stone Quarries  
Torrey Quarry  
M/055/0016  
August 2, 2016

**General Comments:**

Comment #	Comments	Initials	Review Action
1	The NOI says on page 16 of 21 in the last paragraph in Impoundment, Pits and Pond, "The final size of the reclaimed area will be 12.5 acres." The sentence should read 14.5 acres, since all 14.5 acres will be reclaimed.	whw	
2	In Section 110.2 Roads, please remove the sentence "Please refer to R647-4-112 for details" because a variance is not needed.	whw	

**R647-4-106 - Operation Plan**

**General Operation Comments**

Comment #	Comments	Initials	Review Action
3	The NOI says the road through the mine is a public road and therefore it will not be reclaimed. Map 6, Cross Sections, shows that the road and surrounding area will be mined. Please include a narrative of how the road will be maintained during mining operations.	whw	

**R647-4-110 - Reclamation Plan**

**110.1 - Current & post mining land use**

Comment #	Comments	Initials	Review Action
4	In Section R647-4-107 F, Reclamation to be Done During Active Mining Operations Prior to Final Closure, the NOI says, "There will be some concurrent reclamation during active mining operations . . . We will also begin backfilling areas that are at final depth. Please refer to Map #3 and Map#4." Please include the plans to conduct concurrent reclamation in the reclamation section of the NOI. This is needed because a reader would not expect to see the comment in the operations plan. Also include a narrative showing the final depth of the pit and what would trigger concurrent reclamation.	whw	
5	In Appendix 3, please remove items pertaining to equipment that will not be used in reclamation, such as scrapers, haul trucks, articulated trucks, motor graders, and concrete breaking production. Too much information is confusing.	whw	
6	Since Bluebook rental rates and Means labor rates will be used, there is no need to include Wheeler rental rates (which are higher than Bluebook) and Bacon-Davis wages.	whw	



### 110.2 – Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, piles, shafts, adits, etc

Comment #	Comments	Initials	Review Action
7	In Section 110.2 Highwalls, the NOI says any excavations deeper than 10 feet will be benched at a ratio of 2:1 resulting in a highwall of 45 degrees or less. Map 7 shows the reclaimed highwall. The bench is 8 feet wide and 10 feet high with the outslope being 2 feet wide and 10 feet high, which does not correspond to a bench that has a slope of 2H:1V.	whw	

### 110.3 - Facilities to be left for post mining use (buildings, utilities, roads, pads, ponds, pits, equipment, etc.)

Comment #	Comments	Initials	Review Action
8	The NOI says the road through the mine is a public road and will not be reclaimed. Map 6, Cross Sections, show that road and surrounding area will be mined. Please include a narrative of how the road will be restored at time of reclamation.	whw	

### 110.5 - Revegetation planting program

Comment #	Comments	Initials	Review Action
9	<p>The cross sections on Map 6 show that in five years most of the material on the surface will be removed. In Section 110.5 the NOI says salvaged soil material from the topsoil stockpile will be spread at a 3-inch depth on the dumps and quarry floor with a D8R bulldozer. Salvaged soil material from the topsoil stockpile will be worked in and spread out. This should provide a surface with sufficient fines to support vegetation. The seedbed will be scarified, if needed. Most likely the soil will be sufficiently loose from being spread with the dozer. The soil will be left in a roughened condition to allow water harvesting, erosion control and revegetation success.</p> <p>If all or most of the surface material is removed then the only thing that will be left is bedrock. Three inches of soil spread out over bedrock will not be sufficient to support revegetation. At a minimum there should be 6-12 inches of growth medium over bedrock to adequately support vegetation. The Division will support leaving areas of bare rock if other areas have sufficient growth media to support vegetation.</p>	whw	

### R647-4-113 – Surety

Comment #	Comments	Initials	Review Action
10	In section 110.2 the NOI says any excavations deeper than 10 feet will be benched resulting in a highwall angle of 45 degrees or less. Please include line items in the reclamation cost estimate for highwall reclamation.	whw	
11	In section 110.2 the NOI says all slopes will be regraded and recontoured to approximate the original slope. They will be regraded to a slope less than 2 horizontal to 1 vertical. Please include line items in the reclamation cost estimate for regrading and recontouring of slopes.	whw	



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Comment #	Comments	Initials	Review Action
12	In the 2007 NOI 16 hours of equipment time were needed to backfill, grade and contour 8.5 acres BUT only 2 hours were proposed for 14.5 acres. Please explain why there is a reduction of 14 hours. This issue is important because in 110.2 Slopes the Operator states "All slopes will be regraded and recountored to approximate the original slope.	whw	
13	In the 2007 NOI reclamation equipment would include a dozer and frontend loader. However for 14.5 acres the frontend loader is no longer included, please explain.	whw	

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